



KEN HAMMOND (97-CS-3319)

Vitamin E Eases Colds Among Elders

Though folk remedies aimed at soothing the common cold abound, there's no vaccine or antiviral therapy available to cure it. But researchers, funded by ARS and supported by public and private grants, have found hard evidence that vitamin E can make a difference, at least among the elderly.

Nursing-facility residents who consumed 200 international units (IU) of vitamin E daily for 1 year were less likely to get the sniffles than those who took a placebo. The study was lead by Simin Nikbin Meydani, who directs the Nutritional Immunology Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University.

The findings are important, in part, because the elderly have a lower immune response to begin with.

The scientists studied 617 individuals who met eligibility requirements after screening of 2,814 potential candidates. Criteria included being over 65 years of age, not being room bound, not being tube fed, and not being on kidney dialysis or

ventilating equipment. Volunteers were also required to have been free of antibiotic treatment for at least 2 weeks before the start of the study.

All 451 participants who completed the study were residents in some type of long-term-care nursing facility located in or around Boston, Massachusetts.

About half the participants were given a daily supplement of 200 IU of vitamin E. The other half received a daily placebo capsule containing only 4 IU of vitamin E. To help control other dietary factors that affect immune response, each participant received a capsule containing 50 percent of the recommended dietary allowance for essential micronutrients. Participants were supplemented for 1 year.

Nurses examined each volunteer weekly and logged their health status, focusing specifically on signs and symptoms of respiratory infection.

The scientists found that those taking the vitamin E supplements were 20 percent less likely to suffer from upper respiratory infections, such as colds. Among the 34 million elderly living in the United States, that 20 percent would translate to about 7 million fewer of them acquiring respiratory infections, Meydani estimates.

"There was not only a lower incidence of colds among the vitamin-E-taking

residents as a whole, but also fewer colds per person among those who did get colds, compared to the placebo group," says Meydani.

The researchers chose to supplement with 200 IU of vitamin E each day because their earlier research showed that amount to be optimal for improving immune response in the elderly. "We don't believe that doses greater than 200 IU per day would be more effective in reducing respiratory infections in elderly," says Meydani.

Good dietary sources of vitamin E include certain cereals, wheat germ, nuts—especially sunflower seeds and almonds—leafy green vegetables, and vegetable oils. The National Academy of Sciences has set an upper tolerable limit for vitamin E of 1,500 IU a day.

The study results were published in the *Journal of the American Medical Association*. The authors recommend that future studies be geared toward learning how vitamin E affects different types of respiratory infections.—By **Rosalie Marion Bliss**, ARS.

This research is part of Human Nutrition, an ARS National Program (#107) described on the World Wide Web at www.nps.ars.usda.gov.

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